

What Is Claimed Is:

1. An ink set for ink jet recording, having a plurality of colors of ink jet recording ink, wherein said plurality of colors of ink contain pigments, the aspect ratio ( $\sigma$ ) between the major and minor axes of the pigment particles is 2 or less, and the value of  $\eta(1 - n(\sigma - 1))$  ( $n$  is a coefficient indicating  $(\eta_L - \eta_H)/\eta_H$ , where  $\eta_L$  is the viscosity measured at a shear rate of  $10 \text{ S}^{-1}$ , and  $\eta_H$  is the viscosity measured at a shear rate of  $1000 \text{ S}^{-1}$ ;  $0.1 \geq n$ ), which is calculated from the viscosity ( $\eta$ ) of said plurality of colors of ink as measured at a shear rate of  $200 \text{ S}^{-1}$  and at  $20^\circ\text{C}$ , is within  $\pm 5\%$  for said plurality of colors of ink.
2. The ink set for ink jet recording according to Claim 1, wherein the particle size of the pigments has a aspect average of 10 to 200 nm.
3. The ink set for ink jet recording according to Claim 1 or 2, wherein the statistical viewing method involves the use of a scanning electron microscope (SEM) or transmission electron microscope (TEM).
4. The ink set for ink jet recording according to any of Claims 1 to 3, wherein the major axis is the X axis, and the minor axis is the shorter of the Y axis and the Z axis.
5. The ink set for ink jet recording according to any of Claims 1 to 4, wherein the pigments are carbon black and/or organic pigments.

6. The ink set for ink jet recording according to any of Claims 1 to 5, wherein the viscosity of the plurality of colors of ink is at least 2 mPa·s and no more than 10 mPa·s.

5 7. The ink set for ink jet recording according to any of Claims 1 to 6, wherein the surface tension of the plurality of colors of ink is no more than 40 mN/m.

8. The ink set for ink jet recording according to any of  
10 Claims 1 to 7, wherein the pigments are dissolved or dispersed in water without the use of a dispersant.

9. The ink set for ink jet recording according to any of  
15 Claims 1 to 7, wherein the pigments are dissolved or dispersed in water by a polymer.

10. The ink set for ink jet recording according to any of Claims 1 to 9, wherein the pigments are subjected to media-less dispersion.

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11. The ink set for ink jet recording according to Claim 10, wherein the media-less dispersion is accomplished with a nanomizer or a jet mill.

25 12. A method for manufacturing the ink set for ink jet recording according to any of Claims 1 to 11, wherein the value of  $\eta(1 - n(\sigma - 1))$  ( $0.1 \geq n$ ), which is calculated from the viscosity ( $\eta$ ) of said plurality of colors of ink as measured at a specific shear rate and a specific temperature, is adjusted  
30 to be within  $\pm 5\%$  for said plurality of colors of ink.

13. The method for manufacturing the ink set for ink jet recording according to Claim 12, wherein the specific

temperature is 5 to 50°C, and the specific shear rate is 0.1 to  $10^4 \text{ s}^{-1}$ .

14. An ink jet recording apparatus equipped with the ink  
5 set for ink jet recording according to any of Claims 1 to 11,  
wherein ink jet recording is performed with a head whose drive  
system is electrostrictive or thermal.